

Virgil Miller  
Newmar Corporation  
P.O.Box 30  
Nappanee, IN 46550

Re: 039-12223  
Significant Source Modification to:  
Part 70 permit No.: T039-7571-00157

Dear Virgil Miller:

Newmar Coporation was issued Part 70 operating permit T039-7571-00157 on October 18, 1999 for stationary motor home and travel trailer manufacturing facility. An application to modify the source was received on April 28, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) Four (4) natural gas based Unit Heaters identified as H-1, H-2, H-3 and H-4 each having heat input rate of 0.25 million BTU/hour;
- (b) One (1) diesel engine Test Cell with a capacity of 260 horsepower;
- (c) One (1) metal inert gas welding process with 9 welding stations with 1.05 lbs/hour rate of consumption of wire per station;
- (d) One (1) water based frame paint booth with rate of production as 0.1 unit per hour.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

- 1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).
- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- 3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
- 4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
- 5. All requirements and conditions of this construction approval shall remain in effect unless

Appendix A: Emissions Calculations  
Welding and Thermal Cutting

Page 6 of 6 TSD App A

Company Name: Newmar Corporation  
Address City IN Zip: 355 North Delaware, Nappanee, Indiana 46550  
CP: 039-12223  
Plt ID: 039-00157  
Reviewer: Gurinder Saini  
Date: 08/03/2000

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING											
Metal Inert Gas (MIG)(carbon steel)	9	1.05	0.0055	0.0005			0.052	0.005	0.000	0	0.005
EMISSION TOTALS											
Potential Emissions lbs/hr							0.05				0.00
Potential Emissions lbs/day							1.25				0.11
Potential Emissions tons/year							0.23				0.02

METHODOLOGY

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

\*\*Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick r

Using AWS average values:  $(0.25 \text{ g/min}) / (3.6 \text{ m/min}) \times (0.0022 \text{ lb/g}) / (39.37 \text{ in./m}) \times (1,000 \text{ in.}) = 0.0039 \text{ lb/1,000 in. cut, 8 mm thick}$

Plasma cutting emissions, lb/hr:  $(\# \text{ of stations})(\text{max. cutting rate, in./min.})(60 \text{ min./hr.})(\text{emission factor, lb. pollutant/1,000 in. cut, 8 mm thick})$

Cutting emissions, lb/hr:  $(\# \text{ of stations})(\text{max. metal thickness, in.})(\text{max. cutting rate, in./min.})(60 \text{ min./hr.})(\text{emission factor, lb. pollutant/1,000 in. cut, 1" thick})$

Welding emissions, lb/hr:  $(\# \text{ of stations})(\text{max. lbs of electrode used/hr/station})(\text{emission factor, lb. pollutant/lb. of electrode used})$

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Welding and other flame cutting emission factors are from an internal training session document.

Refer to AP-42, Chapter 12.19 for additional emission factors for welding.

welding.wk4 (11/99)

modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Gurinder Saini or extension (3-0203), or dial (317) 233-0203.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

Attachments

GS

cc: File - Elkhart County  
U.S. EPA, Region V  
Elkhart County Health Department  
Northern Regional Office  
Air Compliance Section Inspector Greg Wingstorm  
Compliance Data Section - Karen Nowak  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michele Boner

**SECTION D.9****FACILITY OPERATION CONDITIONS**

- (a) Four (4) natural gas based Unit Heaters identified as H-1, H-2, H-3 and H-4 each having heat input rate of 0.25 million BTU/hour;
- (b) One (1) diesel engine Test Cell with a capacity of 260 horsepower;
- (c) One (1) metal inert gas welding process with 9 welding stations with 1.05 lbs/hour rate of consumption of wire per station;
- (d) One (1) water based frame paint booth with rate of production as 0.1 unit per hour.

**Emission Limitations and Standards [326 IAC 2-7-5(1)]****D.9.1 Particulate Matter (PM) [326 IAC 6-3]**

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter (PM) from the paint booth emission unit shall not exceed the allowable PM emission from the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**D.9.2 Particulate Matter (PM) [326 IAC 6-3]**

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter (PM) from the welding emission units shall be limited to 2.47 pounds per hour. This limit was determined by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**D.9.3 Miscellaneous metal Coating Operations (326 IAC 8-2-9)**

Any change or modification which would increase the potential to emit VOC from coating metal to fifteen (15) pounds per day or more in this emission unit, shall obtain prior approval from IDEM, OAM and shall be subject to requirements of 326 IAC 8-2-9.

**Compliance Determination Requirements****D.9.4 Testing Requirements [326 IAC 2-7-6(1),(6)]**

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limits specified in Condition D.9.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for Significant Source Modification to an issued Part 70 Operating Permit

<b>Source Name:</b>	<b>Newmar Coporation</b>
<b>Source Location:</b>	<b>355 North Delaware Street, Nappanee, Indiana 46550</b>
<b>County:</b>	<b>Elkhart</b>
<b>SIC Code:</b>	<b>3716</b>
<b>Operation Permit No.:</b>	<b>T039-7571-00157</b>
<b>Date Issued:</b>	<b>October 18, 1999</b>
<b>Significant Source modification no.:</b>	<b>039-12223-00157</b>
<b>Permit Reviewer:</b>	<b>Gurinder Saini</b>

On June 12, 2000, the Office of Air Management (OAM) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Newmar Corporation had applied for a significant source modification to a Part 70 Operating Permit to operate a stationary motor home manufacturing facility. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 17, 2000, Newmar Corporation submitted comments on the proposed significant source modification to Part 70 permit. The summary of the comments is as follows (with changes shown in bold and strikeout):

Comment #1: In the draft documents a "diesel generator" is mentioned as one of the permitted equipment. This should be changed to "diesel engine Test Cell".

Response # 1: OAM has incorporated this change in the permit. The description of the equipment is modified as follows:

One (1) diesel ~~generator~~ **engine Test Cell** with a capacity of 260 horsepower;

Comment #2: Description of the Welding unit should replace word "unit" with "process".

Response # 2: OAM has replaced the word "unit" with "process" in the permit. The revised description is as follows:

One (1) metal inert gas welding ~~unit~~ **process** with 9 welding stations with 1.05 lbs/hour rate of consumption of wire per station;

**Indiana Department of Environmental Management  
Office of Air Management**

**Technical Support Document (TSD) for a Part 70 Significant Source  
Modification.**

**Source Background and Description**

Source Name:	Newmar Corporation
Source Location:	355 North Delaware Street, Nappanee, Indiana 46550
County:	Elkhart
SIC Code:	3716
Operation Permit No.:	T 039-7571-00157
Operation Permit Issuance Date:	October 18, 1999
Significant Source Modification No.:	039-12223-00157
Permit Reviewer:	Gurinder Saini

The Office of Air Management (OAM) has reviewed a modification application from Newmar Corporation relating to the construction of the following emission units and pollution control devices:

- (a) Four (4) natural gas based Unit Heaters identified as H-1, H-2, H-3 and H-4 each having heat input rate of 0.25 million BTU/hour;
- (b) One (1) diesel engine Test Cell with a capacity of 260 horsepower;
- (c) One (1) metal inert gas welding process with 9 welding stations with 1.05 lbs/hour rate of consumption of wire per station;
- (d) One (1) water based frame paint booth with rate of production as 0.1 unit per hour.

**History**

On April 8, 2000, Newmar Corporation submitted an application to the OAM requesting to add unit heaters, diesel engine, welding unit and paint booth to their existing plant. Newmar Corporation was issued a Part 70 permit on October 18, 1999.

**Enforcement Issue**

There are no enforcement actions pending.

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S1	TBD*	TBD*	TBD*	TBD*	TBD*

\* TBD – To be determined

## Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 28, 2000.

## Emission Calculations

See Appendix A pages 1 to 6 of this document for detailed emissions calculations.

For the welding units, the following calculation is made to show compliance with rule 6-3. The weight rate used is 930 lb/hour added to the welding usage rate of 9.45 lb/hour. This gives at total of 939.45 lb/hr or 0.47 ton/hour.

$$E = (4.1)(0.47)^{0.67}$$

$$E = 2.47 \text{ lb/hr}$$

Since the actual emission rate is 0.05 lb/hr (see page 6 of Appendix A), then the welding operation complies with rule 6-3.

## Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	3.08
PM-10	2.51
SO <sub>2</sub>	2.33
VOC	3.35
CO	8.01
NO <sub>x</sub>	35.70

## Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) because potential to emit NO<sub>x</sub> is greater than 25 tons/year.

## County Attainment Status

The source is located in Elkhart County.

Pollutant	Status ( <b>attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment</b> )
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Maintenance
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

## Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	Less than 100
PM-10	Less than 100
SO <sub>2</sub>	Less than 100
VOC	Less than 250
CO	Less than 100
NO <sub>x</sub>	Less than 100

The source had agreed to limit the VOC emissions to 249 tons/year to stay as minor source.

- (1) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.



- (2) These emissions are based upon Technical Support Document for Part 70 Operating Permit No: 039-7571-00157.

### Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Diesel Engine	2.51	2.51	2.33	2.86	7.61	35.3	
Paint Booth	0.34			0.49			
Unit Heaters					0.4	0.4	
Welding Unit	0.23						0.02
Total	3.08	2.51	2.33	3.35	8.01	35.7	0.02
PSD Significant	250	250	250	250	250	250	-

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

### State Rule Applicability - Individual Facilities

#### 326 IAC 8-2-9 (Miscellaneous Metal Coating)

This operation paints metal parts. This rule is not applicable because the potential to emit VOC emissions is less than 15 pounds per day. This is less than the applicability of rule 8-2.

#### 326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the paint booth emission unit shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The particulate matter (PM) from the welding emission units shall be limited to 2.47 pounds per

hour. This limit was determined by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

As noted on page 2 this operation will comply with this rule.

### **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

### **Conclusion**

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 039-12223-00157.

## Appendix A: Emission Calculations Emissions Summary

**Company Name:** Newmar Corporation  
**Address City IN Zip:** 355 North Delaware, Nappanee, Indiana 46550  
**CP:** 039-12223  
**Plt ID:** 039-00157  
**Reviewer:** Gurinder Saini  
**Date:** August 3, 2000

Potential Emissions (tons/year)					
Emissions Generating Activity					
Pollutant	Diesal Engine	Surface Coating	Unit Heaters	Welding	TOTAL
PM	2.51	0.34	0.00	0.23	3.08
PM-10	2.51	0.00	0.00	0.00	2.51
SO2	2.33	0.00	0.00	0.00	2.33
NOx	35.30	0.00	0.40	0.00	35.70
VOC	2.86	0.49	0.00	0.00	3.35
CO	7.61	0.00	0.40	0.00	8.01
HAPs	0.00	0.00	0.00	0.02	0.02
Total emissions based on rated capacity at 8,760 hours/year.					

**Appendix A: Emission Calculations**  
**Internal Combustion Engines - Diesel Fuel**  
**Turbine (>250 and <600 HP)**  
**Reciprocating**

Page 2 of 6 TSD App A

**Company Name:** Newmar Corporation  
**Address City IN Zip:** 355 North Delaware, Nappanee, Indiana 46550  
**CP#:** 039-12223  
**Plt ID:** 039-00157  
**Reviewer:** Gurinder Saini  
**Date:** August 3, 2000

Heat Input Capacity  
Horsepower (hp)

Potential Throughput  
hp-hr/yr

260.0

2277600.0

569400

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	2.51	2.51	2.33	35.30	2.86	7.61

**Methodology**

Potential Throughput (hp-hr/yr) = hp \* 8760 hr/yr

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* 8760 hr/yr / (2,000 lb/ton )

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton )

\*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

**Company Name:** Newmar Corporation  
**Address City IN Zip:** 355 North Delaware, Nappanee, Indiana 46550  
**Significant Source Mod. No.:** 039-12223  
**Plt ID:** 039-00157  
**Reviewer:** Gurinder Saini  
**Date:** August 3, 2000

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
<b>Frame booth</b>																
Frame paint (waterbase)	9.4	64.00%	50.8%	13.20%	56.8%	26.58%	0.91000	0.100	2.87	1.24	0.11	2.71	0.49	0.34	4.67	75%

<b>State Potential Emissions</b>	<b>Add worst case coating to all solvents</b>	<b>0.11</b>	<b>2.71</b>	<b>0.49</b>	<b>0.34</b>
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METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Worst Coating + Sum of all solvents used

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Unit Heaters**

**Company Name:** Newmar Corporation  
**Address City IN Zip:** 355 North Delaware, Nappanee, Indiana 46550  
**CP:** 039-12223  
**Plt ID:** 039-00157  
**Reviewer:** Gurinder Saini  
**Date:** 08/03/2000

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

1.0

8.8

**Pollutant**

Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
				100.0		
	1.9	7.6	0.6	**see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.0	0.0	0.4	0.0	0.4

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name:** Newmar Corporation**Address City IN Zip:** 355 North Delaware, Nappanee, Indiana 46550**CP:** 039-12223**Pit ID:** 039-00157**Reviewer:** Gurinder Saini**Date:** 08/03/2000**HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.198E-06	5.256E-06	3.285E-04	7.884E-03	1.489E-05

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.190E-06	4.818E-06	6.132E-06	1.664E-06	9.198E-06

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.